

November 15, 1984

COMMENTS ON REMEDIAL ACTION ALTERNATIVES

Site No.	46
Other	222686

The following, unlike the other material, are written comments. The large script material, submitted separately, were written as Oral Comments prior to the October 25 Hearing. They were not delivered at the Hearing due to time restraints. The author instead spoke extemporaneously. The above (Oral Comments) will be submitted as an attachment, to be forwarded later along with other material.

The proposals of the EPA are specific. They should serve as benchmarks, not final choices, open to variation to meet local preferences and needs. A future meeting is needed to move toward a satisfying precision. To move properly toward that precision, a generic analysis is necessary so that what is specific will be ordered and subordinated as a range of variants of the scope of practical possibilities.

The first assessment is either the full disposal capacity of the Northern area,* or no less than to accommodate the Southern area* (from Coggeshall St. to the Hurricane Barrier). Broadly speaking, there are two alternatives, the rest of which are variants.

Either to bury the contaminants and leave the area as is; or to place the Southern area 'layer' on top of the Northern area,** cap, and run a channel through. Both alternatives may entail displaced material. Sites are available in the City for such (clean) displaced material, namely, at the Airport or to extend the landfill.

The practical possibility of the 'bury' alternative cannot be assessed at this time for it assumes the 3 ft. cut, sufficient space to bedrock, and the bedrock is stable. Borings at Riverside Cove were to 30'. However, based on the geology at the gravel pit above the Northern area to the east, the bedrock would be (highly) faulted. This was the perception of a geophysicist. Where any filtered contaminants would go via gravitational forces, if they would be subject to such forces, would be in need of determination. In view of this limitation, the patti-cake alternative** may be more feasible. Based on a bathymetric survey of NOS (c.1978), water depths run from c.30' near the bridge, and shortly north of the bridge, to 12', 8', 4', 2'. Much of the river bottom is unconsolidated. Assuming 4' for consolidation, 4' average water depth, 4' rise to stable land on the west side, a 4' tidal rise, to fill in and level could accommodate substantial contaminated material from the Southern area. In the event of displaced material, the above City sites could be utilized.

* The Northern area contains 1 million yds³, the Southern area, 4 million yds³. This is based on a 3 ft. depth as the limit of contaminants.

** We can call this the patti-cake alternative. The other, the bury alternative.



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What should be kept in mind are the fortunate circumstances. Namely, a disposal site with considerable open and unused space, away from or distinct from populations, and the natural controls (narrow outlets) to prevent migration. The Hurricane Barrier is another restraint.

The approach to the problem should be comprehensive. Integrated then fragmented.

Thus consideration must be given to other sources that can contribute to the sustenance of levels in the harbor. Namely, surface water runoff and treatment plant discharges. RAMP should be amended to provide an assessment of this need, not to fund, but to give direction to other funding sources outside the Scope of Superfund.

For example, collecting basins, in particular entry into the Bay (especially at Clark's Cove, a fertile shellfish area that is harvested). While the discharges through the treatment plant appear to be low (on an absolute scale), the level may still be significant to the sustenance of the sediment levels in the Outer Harbor. The latter, though low on an absolute scale, are correlatively high in respect to marine and then human uptake. Further, given the possibility the plant is not well-structured, that in the event of a tidal hurricane similar to the 1938 storm, given that the plant is at the tip of a peninsula facing an open Bay, and the opinion of some locals familiar with the protective rip rap, then it may be advisable to consider an underground cavern as a new site for the plant. The geology of the area is adequate according to a geophysicist who evaluated such for the SPR (Strategic Petroleum Reserve). Such a site would mean the inclusion of a collecting reservoir so no untreated water would enter the Bay. This is a feasible alternative for they do it in Sweden and Germany. A feasibility study has already been done for New Bedford. Since New Bedford Harbor is a special case, funding sources may be open to this possibility. Upon invitation to review and participate, they may be receptive, very receptive.

RAMP, by name and definition, means an integrated approach. The EPA has the opportunity for 'the grand stroke' to fully meet the needs of the situation.

In respect to the inclusion of Southern area contaminants in the Northern area, though the hot spot area is on a fast track, the assessment of the area must not preclude its use for the other area. Further, it may be more feasible to do both areas at the same time since substantial engineering costs may be reduced. Since any alternative means the communities will have to forever live with it, caution is necessary and the selected alternative must be embracing. The immediacy of the problem can be interimly addressed, namely, a sediment dispersal control can be put in place, and some of the open flats interimly capped to provide invaluable information in respect to the effect on air measures. Meanwhile, the 3 ft. cut can be made precise and a bedrock profile and analysis determined. If, by virtue of preliminary assessments that since the bedrock is highly faulted and the patti-cake (layer on) alternative viable, the 3 ft. cut should be made precise for the Southern area. The volume of dredge material has to be ascertained.

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Let me also touch on some specifics in the report. The report mentions scouring at the Coggeshall Bridge. I presume this is based on the noted 30' depths in the vicinity. But this can be misleading. The 30' depths are due to the use of dredged material for the embankments about the Coggeshall Street bridge and the Route 195 overpass. The 30' depth is not natural, the natural depth is from 8'-15'.

In respect to the sediment cap alternative, consideration should be given to extending the solid land to the channel, let the tidal flow enter only to the east, and incorporate runoff underground into the channel and/or into a collecting basin. The retaining basin can be used for this purpose after its cleanup use. I would also give consideration to use of the land south of the (R.) Cove east of the mills. It's considerable. Depth to bedrock there could provide another source of displaced material. I also note the locus of the retaining basin, near populations, though I offer no other alternative (east side, back of mills?).

While it would appear advisable to retain the wetlands on the east side, their function is as a filter into the estuary, not as a drainage mechanism before entry into populated areas. Hence they can be substantially modified, though any alternative must be capable of passing through the water via runoff down the steep Acushnet incline into the channel.

Further, in view of the upper river being actively used for commercial vessels, the harbor and channels must be periodically dredged for the long term. It would only appear to be prudent then to set aside areas to accommodate this need. At least, to earmark such. The grand stroke is within your grasp. The EPA is to be commended for defining the hot spot area to be inclusive. They can be further commended. It is simply a matter of doing what should be done. Pride is to be had in doing what is right.

Nonetheless, as noted at the Hearing, the author has to submit, if not here, at another time, a substantial criticism.

It is imperative that a future hearing, one of dialogue, be held. Final choices cannot be made, not until major alternatives based on the full capacity of the disposal area are considered, and then presented to a triumvirate body of officials from the three communities for their review, preference, and even final say, if the statutes permit it. Any proposed alteration of the historic divide between communities would seem to necessitate, as a matter of political right, this elective procedure. A solution should be through consent. Minimally, a future hearing should make the lead agency accountable. To use a simple example: Why are you not going to make an assessment of ways to reduce surface water runoff? Indeed the question has merit, and thus, there must be good reasons to say no, etc.

It would seem to be prudent that at some point in time the EPA seek an evaluation by an independent engineer* to evaluate whether the proposals are

* Possibly a regional engineer with considerable input from the officials of the communities. It is my experience, and it can be documented, that the consultants of the EPA have presented results with shortcomings, for want of utilizing knowledgeable local sources, who know the needs of the area and have a mastery of data and perspectives that distant sources are remote from.

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generic and whether alternative specifications can be practical in order to maximize the use of the disposal space for containment. I do not have the technical background to evaluate the minimal requirements of the cellblock alternative; but a first glance reading makes one wonder if this is the only bury alternative, if the cell banks are unnecessarily wide (100'?), and if the method could be substantially altered and space accommodating if more of the area were used at once. After all, the riverbottom is relatively stable and in place now, without such partitions. The EPA, nor I, nor the citizens can evaluate such. Only another engineer. Since the final solution will indeed be final, it is only circumspect to seek advisory input now, something NUS should welcome.

While the author is indeed grateful to the Chair for permitting him to speak more than once, on the provision time was available, nonetheless, such a format should not dictate limits on input. Given the gravity of what is at stake, the format should be open-ended with considerable time available. In this regard, as the author noted to the Chair, a 3-hour comprehensive presentation is available. The prime value of it is to fully brief and assure a perspective is defined that is neither excessive nor negligible to the need of the situation. It is not to the credit of the higher levels that they have proceeded presumptuously.

The author has a number of attachments to forward later, one of which he submits now (a summary of Oral Comments given October 25 at the Hearing).

Sincerely,

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ATTACHMENTS*

1. Oral Comments, from memory
2. Oral Comments, written but not spoken due to time restraints
(prepared October 24±, 1984)
3. The Fate of Dredged Materials: PCBs in NB and Beyond
(Analysis of Interest)
4. Official Documents

* Only #1 forwarded November 15, 1984. Others to be forwarded later.

NOTE: Robert B. Davis, formerly associated with Planning Department,
City of New Bedford